

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 December 2001 (06.12.2001)

PCT

(10) International Publication Number
WO 01/93038 A3

(51) International Patent Classification⁷: **G06F 11/07, 9/46, 11/20**
(74) Agents: SHERRY, Leah et al.; Oppenheimer Wolff & Donnelly LLP, 1400 Page Mill Road, Palo Alto, CA 94304 (US).

(21) International Application Number: PCT/US01/17347

(81) Designated States (*national*): JP, US.

(22) International Filing Date: 30 May 2001 (30.05.2001)

(84) Designated States (*regional*): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).

(25) Filing Language: English

Declarations under Rule 4.17:

- *of inventorship (Rule 4.17(iv)) for US only*
- *of inventorship (Rule 4.17(iv)) for US only*

(26) Publication Language: English

Published:

- *with international search report*

(30) Priority Data:
60/208,021 30 May 2000 (30.05.2000) US

(88) Date of publication of the international search report:
28 March 2002

(71) Applicant (*for all designated States except US*): COM-

PAQ COMPUTER CORPORATION [US/US]; 10435
North Tantau Avenue, Cupertino, CA 95014 (US).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

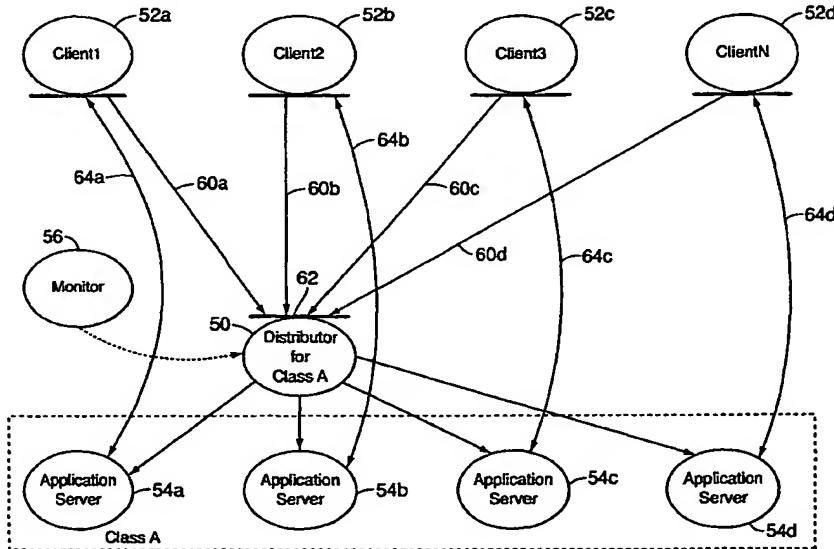
(71) Applicants and

(72) Inventors: SEAGREN, Charles, F. [US/US]; 122
Melville, Palo Alto, CA 94041 (US). CHAPMAN, Bar-
bara, A. [US/US]; 757 Shary Drive, Mountain View, CA
94041 (US).

(54) Title: SCALABLE JAVA SERVERS FOR NETWORK SERVER APPLICATIONS



WO 01/93038 A3



(57) Abstract: A system for providing Java-implemented Application Servers to a plurality of clients. Each of the Java-implemented Application Servers is configured to execute on a processing element of a server which has multiple independent processing elements arranged such that a failure of one processing element does not affect the operability of the other processing elements. A Distributor is provided to enable making connections with the clients and then determine which of the Application Servers actually services the clients requests. The Distributor attempts to choose the Application Server that has the fewest number of clients as the server for a new client request. A monitoring program restarts the Distributor if it fails. The system thus provides a scalable and available set of Java-implemented Application Servers without requiring any change to the Java-implemented application itself.

SVN93038 A3

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/17347

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F11/07 G06F9/46 G06F11/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 28424 A (BEA SYSTEMS INC) 18 May 2000 (2000-05-18) the whole document ---	1-9
A	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 12, 25 December 1997 (1997-12-25) & JP 09 218842 A (FUJITSU LTD), 19 August 1997 (1997-08-19) abstract & US 6 128 657 A (OKANOYA ET AL.) 3 October 2000 (2000-10-03) Later published family member in an official language of the EPO the whole document ---	1-9
L	-/-	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *'A' document defining the general state of the art which is not considered to be of particular relevance
- *'E' earlier document but published on or after the international filing date
- *'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *'O' document referring to an oral disclosure, use, exhibition or other means
- *'P' document published prior to the international filing date but later than the priority date claimed

*'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

*'X' document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

*'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

*& document member of the same patent family

Date of the actual completion of the international search 21 November 2001	Date of mailing of the international search report 07/01/2002
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Absalom, R

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/17347

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 99 53415 A (WOLFF JAMES J ;HEWLETT PACKARD CO (US)) 21 October 1999 (1999-10-21) the whole document ---	1-9
A	US 5 459 837 A (CACCAVALE FRANK S) 17 October 1995 (1995-10-17) the whole document ---	1-9
A	YIKE GUO ET AL.: "Developing a Distributed Scalable Entreprise JavaBean Server" PROCEEDINGS OF HIGH PERFORMANCE COMPUTING AND NETWORKING, 8 May 2000 (2000-05-08), pages 207-216, XP001041337 Amsterdam, NL the whole document ---	1-9
A	CODELLA C F ET AL: "SUPPORT FOR INTERPRISE JAVABEANS IN COMPONENT BROKER" IBM SYSTEMS JOURNAL, IBM CORP. ARMONK, NEW YORK, US, vol. 37, no. 4, 1998, pages 502-537, XP000805714 ISSN: 0018-8670 the whole document ---	1-9
P,A	WO 01 33328 A (LUBOVICH ILYA ;EMC CORP (US); MURPHY JOSEPH G (US)) 10 May 2001 (2001-05-10) abstract -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/17347

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 0028424	A	18-05-2000	US	6236999 B1		22-05-2001
			AU	1127100 A		29-05-2000
			AU	1217400 A		29-05-2000
			AU	1217700 A		29-05-2000
			AU	1448700 A		29-05-2000
			EP	1138000 A1		04-10-2001
			EP	1149340 A1		31-10-2001
			EP	1137993 A1		04-10-2001
			WO	0028431 A1		18-05-2000
			WO	0028464 A2		18-05-2000
			WO	0028421 A1		18-05-2000
			WO	0028424 A1		18-05-2000
JP 09218842	A	19-08-1997	US	6128657 A		03-10-2000
WO 9953415	A	21-10-1999	US	6101508 A		08-08-2000
			US	6067545 A		23-05-2000
			US	6185601 B1		06-02-2001
			US	6044367 A		28-03-2000
			AU	3861399 A		01-11-1999
			WO	9953415 A1		21-10-1999
US 5459837	A	17-10-1995		NONE		
WO 0133328	A	10-05-2001	WO	0133328 A2		10-05-2001